

# Exhibit 87

Deposition of Hal J. Singer, Ph.D. (September 27, 2017) (excerpted)

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEVADA

- - -

IN RE: : Civil Action  
: DOCKET NO.  
CUNG LE, NATHAN QUARRY, : 2:15-cv-01045-RFB-  
JON FITCH, BRANDON VERA, : (PAL)  
LUIS JAVIER VAZQUEZ and :  
KYLE KINGSBURG, on behalf : CLASS ACTION  
of themselves and all :  
others similarly :  
situated, :  
:  
Plaintiffs, :  
:  
v. :  
:  
ZUFFA, LLC, d/b/a :  
ULTIMATE FIGHTING :  
CHAMPIONSHIP and UFC, :  
:  
Defendants. :  
- - -

Wednesday, September 27, 2017

- - -

Videotaped deposition of  
HAL J. SINGER, Ph.D., taken pursuant to  
notice, was held at the law offices of  
Berger & Montague, P.C., 1622 Locust  
Street, Philadelphia, Pennsylvania 19103,  
beginning at 9:24 AM, on the above date,  
before Constance S. Kent, a Certified  
Court Reporter, Registered Professional  
Reporter, Certified LiveNote Reporter, and  
Notary Public in and for the Commonwealth  
of Pennsylvania.

\* \* \*

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<p>1 opposed to as a percentage of revenue?</p> <p>2 MR. CRAMER: Objection to</p> <p>3 form, to generally. For what</p> <p>4 purpose?</p> <p>5 THE WITNESS: A firm could,</p> <p>6 if a firm bills -- if a law firm</p> <p>7 bills an associate out at \$400 an</p> <p>8 hour, it could express what the --</p> <p>9 what the young lawyer's salary on</p> <p>10 an hourly basis is as a -- under</p> <p>11 an assumed utilization rate as a</p> <p>12 percentage of that young lawyer's</p> <p>13 bill rate.</p> <p>14 BY MR. ISAACSON:</p> <p>15 Q. And are you aware of any</p> <p>16 studies which express the marginal</p> <p>17 revenue product of labor in terms of the</p> <p>18 percentage of revenue of the firm?</p> <p>19 A. I'm not aware, but as you've</p> <p>20 expressed it, that's not quite what I'm</p> <p>21 doing either.</p> <p>22 Q. Now, in terms of -- did you</p> <p>23 make any effort to measure the marginal</p> <p>24 revenue product of labor of UFC fighters?</p>	<p>1 Q. Well, I didn't ask about the</p> <p>2 brand.</p> <p>3 The -- you would agree --</p> <p>4 you would agree with me that effective</p> <p>5 marketing and promotion could increase</p> <p>6 the average revenue per event, correct?</p> <p>7 A. Yes.</p> <p>8 Q. And you would agree with me</p> <p>9 that super- -- improving television</p> <p>10 production can increase the average</p> <p>11 revenue per event?</p> <p>12 MR. CRAMER: All things</p> <p>13 equal?</p> <p>14 MR. ISAACSON: Yes.</p> <p>15 THE WITNESS: I'm not sure</p> <p>16 what -- what you mean by improving</p> <p>17 television production.</p> <p>18 BY MR. ISAACSON:</p> <p>19 Q. A better production that</p> <p>20 people enjoy more.</p> <p>21 MR. CRAMER: Objection to</p> <p>22 form.</p> <p>23 THE WITNESS: And you're</p> <p>24 asking me if I can conceive of</p>
<p>1 A. Yes.</p> <p>2 Q. Okay. And what would you</p> <p>3 point to me for that?</p> <p>4 A. What I did, which is I -- I</p> <p>5 calculated the average revenue per event,</p> <p>6 per fighter, and I'm using that as a</p> <p>7 proxy for the marginal revenue product.</p> <p>8 Q. All right. If the</p> <p>9 average -- when you look at the average</p> <p>10 revenue per event, per fighter, how do</p> <p>11 you determine what part of that revenue</p> <p>12 is the contribution of the fighter as</p> <p>13 opposed to, for example, marketing,</p> <p>14 promotions, production or the work of the</p> <p>15 overall firm?</p> <p>16 A. So for my purposes, I don't</p> <p>17 need to figure out that -- that</p> <p>18 decomposition. I will note, however,</p> <p>19 that I cite a study in my literature</p> <p>20 review section that suggests that the</p> <p>21 fighter is responsible for, if not all,</p> <p>22 the vast majority of -- of the</p> <p>23 pay-per-view revenues that are captured</p> <p>24 and not the brand.</p>	<p>1 Page 119</p> <p>1 this as a matter of theory?</p> <p>2 BY MR. ISAACSON:</p> <p>3 Q. Yes.</p> <p>4 A. As opposed to whether it</p> <p>5 actually happened?</p> <p>6 Q. Yes.</p> <p>7 A. I think I'm -- I'm going to</p> <p>8 grant you that as a matter of theory one</p> <p>9 could -- one could add value by</p> <p>10 increasing the quality of the production.</p> <p>11 Q. Okay. Now, in this case,</p> <p>12 you did not do an actual study yourself</p> <p>13 of the contribution of the UFC fighters</p> <p>14 to the average revenue per event; is that</p> <p>15 right?</p> <p>16 MR. CRAMER: Asked and</p> <p>17 answered.</p> <p>18 THE WITNESS: I think that's</p> <p>19 correct. As I noted a few moments</p> <p>20 ago, that was not necessary for my</p> <p>21 purposes.</p> <p>22 BY MR. ISAACSON:</p> <p>23 Q. By using the average revenue</p> <p>24 per event, per fighter as a proxy, were</p>

1 you using that as a proxy for the  
 2 marginal revenue product of that labor?

3 A. Yes.

4 Q. Okay. And you were assuming  
 5 that all of that average revenue per  
 6 event, per fighter was the product of  
 7 that labor as opposed to some other  
 8 source?

9 MR. CRAMER: Form.

10 THE WITNESS: No, I don't  
 11 think I'm assuming that.

12 BY MR. ISAACSON:

13 Q. When -- when you look at  
 14 average revenue -- I'm sorry. When you  
 15 ordinarily look at the marginal revenue  
 16 product of labor, do you talk about  
 17 everybody who works in the firm including  
 18 management?

19 MR. CRAMER: Objection to  
 20 form.

21 THE WITNESS: If -- if this  
 22 were some other case and you were  
 23 interested in computing the  
 24 marginal revenue product of

1 management, you might -- you might  
 2 be interested in that. But that  
 3 wasn't what I was trying to do  
 4 here.

5 BY MR. ISAACSON:

6 Q. All right. Here, have you  
 7 attempted to actually estimate the  
 8 marginal revenue product of the fighter  
 9 portion of the labor force of the UFC?

10 MR. CRAMER: Objection to  
 11 form.

12 THE WITNESS: I think you're  
 13 getting at the same question now,  
 14 just asked in a different way  
 15 which is have I done a  
 16 decomposition of the marginal  
 17 revenue product between the  
 18 fighters and -- and Zuffa, and the  
 19 answer is no, I have not done that  
 20 decomposition.

21 BY MR. ISAACSON:

4 Q. You, yourself, have not  
 5 looked at the levels of pay over time  
 6 paid to Zuffa's fighters other than  
 7 looking at this study?

8 MR. CRAMER: Objection to  
 9 form.

10 THE WITNESS: So I wouldn't  
 11 put it that way.

12 BY MR. ISAACSON:

13 Q. How would you put it?

14 A. I am absolutely looking at  
 15 their pay over time in the sense that I'm  
 16 recording their pay as the numerator of  
 17 my dependent variable. So to suggest  
 18 that I'm not looking at their -- their  
 19 pay is erroneous.

20 Q. All right. The -- was there  
 21 a period where the average revenue per  
 22 event in UFC had -- have you looked at  
 23 any periods where there were abrupt jumps  
 24 in that?

1 Class where I demonstrate what I consider  
 2 to be a rigid pricing structure when it  
 3 comes to identity payments.

4 Q. Okay. And did you do any  
 5 separate economic modeling such as you  
 6 did for the bout class?

7 A. No, I did not.

8 Q. The -- and you have two  
 9 methods of estimating damages for the  
 10 identity class as I understand it. One  
 11 is that you take the percentage increase  
 12 in revenue that would be paid as the  
 13 fighter share, the increased percentage.  
 14 So for example, if the fighter share went  
 15 from 50 to 75 percent, that would be a 25  
 16 increase in fighter share, and then you  
 17 apply that percentage increase to the  
 18 identity payments actually made to  
 19 fighters?

20 A. Close. As stated in  
 21 percentage terms, and I give the -- I  
 22 give the sample in paragraph 253 where I  
 23 put the but-for share --

24 Q. Yes.

13 [REDACTED]  
 14 [REDACTED]  
 15 [REDACTED]  
 16 [REDACTED]  
 17 [REDACTED]  
 18 [REDACTED]  
 19 [REDACTED]  
 20 [REDACTED]  
 21 [REDACTED]  
 22 [REDACTED]  
 23 [REDACTED]  
 24 [REDACTED]

MR. ISAACSON: Okay. All  
 right. Why don't we take a break?

THE VIDEOGRAPHER: The time  
 is 2:10 PM. This is the end of  
 Disk 2. We are off the record.

(Recess.)

THE VIDEOGRAPHER: The time  
 is 4:26 PM (sic). This is the  
 start of Disk No. 3 and we are now  
 on the record.

BY MR. ISAACSON:

Q. You can look at --

1 A. Over the -- right, over the  
 2 actual share, and then I multiply that by  
 3 the payments that were made, correct. I  
 4 mean, so long as that's what you're  
 5 saying, we're on the same page.

6 Q. I think we're saying the  
 7 same thing.

8 A. Okay.

9 Q. But you're applying the  
 10 percentage increase in the fighter share  
 11 to the absolute payments for the identity  
 12 payments?

13 A. Yes.

1 [REDACTED]  
 2 [REDACTED]  
 3 [REDACTED]  
 4 [REDACTED]

MR. CRAMER: The time is  
 what?  
 THE VIDEOGRAPHER: 2:26 PM.

I'm sorry.

MR. CRAMER: Okay.

BY MR. ISAACSON:

7 Q. If you could look at page  
 8 154 of your report, Table 7, which  
 9 displays the results of your first  
 10 analysis of common -- econometric  
 11 analysis of common impact. We've looked  
 12 at this before.

A. Yes.

14 Q. And it says bout class  
 15 compensation structure. And in paragraph  
 16 228 when you're discussing this, in the  
 17 first sentence -- I've actually said this  
 18 sentence several times, I think:

19 "I performed regressions to  
 20 determine whether gains or losses in  
 21 compensation are broadly shared across  
 22 the bout class."

A. Yes.

Q. Was -- did you use for the

<p>1 regressions in Table 7 the Zuffa bout  2 class data? And by that I mean, that's  3 defined at page 203 of your report,  4 Appendix 2, the first dataset.</p> <p>5 MR. CRAMER: Take your time  6 to look at the appendix he's  7 talking about.</p> <p>8 THE WITNESS: Do you want to  9 take me to the appendix?</p> <p>10 BY MR. ISAACSON:</p> <p>11 Q. Sure. On page 203. The  12 first dataset, Zuffa's bout compensation  13 data.</p> <p>14 A. I believe that that dataset  15 would be sufficient to use to generate  16 the analysis and the results in Table 7.</p> <p>17 Q. Does that mean that's what  18 you did use?</p> <p>19 A. I'm pretty sure that's what  20 I did do.</p> <p>21 Q. Okay. And then looking at  22 Table 8 where you report the results of  23 your other impact, the econometric  24 analysis, and there are different numbers</p>	<p>1 A. And now what you're going to  2 do is predict, given that fighter's  3 attributes and everything that happened  4 in the fight and all the other right-hand  5 side variables, what that fighter would  6 have received in a but-for world with  7 either zero or 20 percent foreclosure  8 share, right, and you're going to ask a  9 simple question: Did the predicted  10 share, fighter wage share for that  11 fighter/event pair, did that exceed or  12 was it below the actual share. That's  13 how -- we're going to make judgments on  14 each -- on each observation whether they  15 were impacted that way.</p> <p>16 Q. All right. So a couple  17 pieces here just to make sure I  18 understand the math. So when you were  19 doing this calculation, you're increasing  20 the total fighter's share for the  21 fighter's at the event, but between two  22 fighters, would their proportional share  23 remain the same? Let me --</p> <p>24 A. The premises is wrong.</p>
<p>1 reported in the errata that are slightly  2 higher?</p> <p>3 A. Right.</p> <p>4 Q. The -- I guess we can look  5 at those. That would be Exhibit 3, which  6 reports ranging from 99.1 percent to  7 96.3 percent, depending on which part of  8 the table you're looking at.</p> <p>9 Now, as I understand the way  10 you did this is that you took the -- the  11 increased fighter share of revenue, you  12 translated that into a percentage  13 increase in -- a predicted percentage  14 increase in pay, and then you applied  15 that to individual events?</p> <p>16 A. Not quite.</p> <p>17 Q. Close?</p> <p>18 A. I can say it better.</p> <p>19 Q. Yeah. Go ahead.</p> <p>20 A. Okay. So you have for each  21 fighter/event pair the actual share of  22 the event revenue that went to the  23 fighter in the real world, right?</p> <p>24 Q. Okay.</p>	<p>1 You're not increasing anyone's share.</p> <p>2 Q. Okay.</p> <p>3 A. This is just a comparison.</p> <p>4 You're comparing the actual fighter share  5 for a given event, right?</p> <p>6 Q. Right.</p> <p>7 A. To his predicted share based  8 on the regression model when you set the  9 foreclosure share equal to zero or  10 20 percent. It's all -- it's just a  11 comparison. No one is getting moved up  12 or down.</p> <p>13 Q. Right. I understand it's a  14 comparison. I'm trying to get comparison  15 right, so be patient with me.</p> <p>16 A. But the premise was -- the  17 premise was wrong in the question.</p> <p>18 Q. Well, don't -- say the  19 premise is wrong and I'll ask a new  20 question.</p> <p>21 A. Okay.</p> <p>22 Q. The -- so for the predicted  23 share, right, if you had a group of  24 fighters at an event, their predicted</p>

<p>1 shares would all rise once the total 2 fighters' share rose; is that correct? 3 A. That's not how I'd put it. 4 Q. Okay. Well, you calculate a 5 total -- an increase in total fighters' 6 share, correct? 7 A. Not for this model. 8 Q. No, I know. But are you a 9 applying -- 10 A. I thought we were on Table 11 8. 12 Q. Yes. Yes, we are. 13 A. But there's no -- there's 14 no -- 15 Q. You're not taking your 16 predicted increase in fighter share from 17 somewhere else and applying it in here? 18 A. No. 19 Q. Okay. Then how -- you're 20 doing a separate but-for analysis of 21 predicted fighters' share for each event; 22 is that right? 23 A. I would say for each 24 fighter/event pair. We're going to use</p>	<p>1 The -- you run the 2 regression, and you're not running the 3 regression at the event level either? 4 A. Well, remember what an 5 observation is in regression, it's a 6 fighter/event pair, right, so a given 7 fighter with a given event, we can 8 calculate what he or she earned as a 9 percentage of event revenue. That's the 10 left-hand side variable. 11 Q. Right. 12 A. And then you have all these 13 host of variables that could explain what 14 that share was, the key one being the 15 foreclosure share. 16 So we fit a model based on 17 actual world data, and then to make a 18 projection for each individual fighter, 19 we use the parameters that came from that 20 one aggression model and we're going to 21 project what that fighter's wage share 22 would have been had a foreclosure share 23 been either equal to zero or 20 percent. 24 Q. So I do understand that</p>
<p>Page 227</p>	<p>Page 229</p>

<p>1                   THE WITNESS: You're using  2                   the parameters that came out of  3                   the -- the regression to then make  4                   a prediction. And so, right, you  5                   have the coefficients and you've  6                   got a given fighter's right-hand  7                   side variables, right? And now we  8                   can -- we can predict based on one  9                   slight modification to the actual  10                  world, which is that we're going  11                  to take the foreclosure share down  12                  to zero or 20 percent, and we're  13                  going to predict what that  14                  fighter's wage share would have  15                  been, and then we're going to  16                  compare it to the actual wage  17                  share for that event.</p> <p>18 BY MR. ISAACSON:</p> <p>19                  Q. Does the prediction  20                  within -- does the prediction within a  21                  year -- I'm sorry. Does the prediction  22                  for events within a year, if it predicts  23                  a 15 percent increase in fighter's  24                  share --</p>	<p>1                  Q. Okay. Is it getting -- is  2                  it predicting for each event during the  3                  year, a specific increase in wage share?</p> <p>4                  A. No.</p> <p>5                  Q. Okay. So you have two  6                  events during the year?</p> <p>7                  A. You don't have two, you have  8                  a ton.</p> <p>9                  Q. I know but for purposes of a  10                  really simple example --</p> <p>11                  A. Okay.</p> <p>12                  Q. -- that's going to help  13                  educate me.</p> <p>14                  A. Okay.</p> <p>15                  Q. The -- during the same year,  16                  and during that year you've predicted  17                  that, through the regression, that the  18                  overall wage share or fighter share is  19                  going to increase. All right?</p> <p>20                  A. Yes.</p> <p>21                  Q. Okay. Tell me what would  22                  be -- how -- how will that play out in  23                  terms of the prediction for those two  24                  events?</p>
<p>1                  A. Oh, it's not -- it's not  2                  doing that. It's not -- I think this  3                  might be the disconnect. It's not  4                  predicting an increase, right? It's just  5                  predicting a wage share. And it's our  6                  job to then, as the last step, compare  7                  the prediction to the actual.</p> <p>8                  Q. I'm sorry. I --</p> <p>9                  A. In some cases it's above.</p> <p>10                 Q. I meant a 15 percent  11                 increase in wage share?</p> <p>12                 A. But it's not -- it's not  13                 uniformly predicting that everyone would  14                 get a 15 percent increase relative to  15                 what they actually got. It's literally  16                 predicting what they would have gotten  17                 conditional on all of their --</p> <p>18                 Q. Right.</p> <p>19                 A. -- explanatory --</p> <p>20                 Q. So for each event during the  21                 year, is it predicting the fighters would  22                 get the average increase in wage share  23                 for that year?</p> <p>24                 A. No.</p>	<p>1                  A. It would --</p> <p>2                  MR. CRAMER: Incomplete  3                  hypothetical.</p> <p>4                  THE WITNESS: It would tend  5                  to predict that most fighters can  6                  be shown to be worse off in the --  7                  in the actual world compared to  8                  the but-for world.</p> <p>9                  BY MR. ISAACSON:</p> <p>10                 Q. Right. But in terms of --</p> <p>11                 I'm trying -- in terms of your Table 8?</p> <p>12                 A. Yes.</p> <p>13                 Q. The -- if the fighter share  14                 for that year according -- in the but-for  15                 world was going to rise by 15 percent?</p> <p>16                 A. Okay.</p> <p>17                 Q. Would you be calculating  18                 that the fighter share for the event as a  19                 whole would go up by 15 percent?</p> <p>20                 A. Not for the purpose of this  21                 exercise, no.</p> <p>22                 Q. Okay. How would you -- if  23                 the fighter's share for the year was  24                 going up by 15 percent, how would you</p>

1 translate that into a fighter's share for 2 the fighters at a specific event? 3 A. It depends on what exercise 4 you're doing. If you want to do 5 something different from what can he did 6 here. 7 Q. I don't want to do something 8 different. I want to do what you did 9 here. 10 A. Well, then, you need -- you 11 need to get away from starting with the 12 aggregate effects in a given year. 13 That's not -- that's not working here. 14 All right? What's working here is that 15 we're going to fit a model based on these 16 thousands of observations and we're going 17 to go back and project for each member of 18 the bout class for each event what his or 19 her but-for wage share would have been if 20 foreclosure had been zero or 20 percent. 21 Then we are going to compare that 22 prediction, which is different for 23 everyone, right, because everyone has a 24 different set of right-hand side	1 listed in your variables, did they have 2 knockdowns and things like that, and 3 you're seeing -- and from that you're 4 getting your prediction? 5 A. Correct. What we're trying 6 to do is best we can to figure out what 7 can explain movements in a given 8 fighter's wage share for given events, 9 correct. 10 Q. Right. Okay. I think I'm 11 getting closer now. 12 So you've got the left hand 13 and the right hand, and if on the left 14 hand, the fighter's share increases, then 15 you have a prediction as to what will 16 happen based on the individual 17 characteristics of the fighter and the 18 event and then -- and you compare that to 19 what actually happened? 20 A. I wouldn't put it that way. 21 Q. Okay. 22 A. A model, once it's fit, can 23 make a prediction for each fighter as to 24 what his or her wage share would have
1 characteristics, we're going to get a -- 2 we're going to get a different prediction 3 for everyone and we're going to compare 4 it to their actual. 5 And what you're saying in 6 the tables is that most people would have 7 been better -- most people in the class 8 would have been better pursuant to this 9 model. There is a very small fraction, 10 it's under 1 percent now, who would not 11 have been better off under this 12 particular model. 13 Q. Is it -- the dependent 14 variable was the -- actually, it was 15 different. 16 The fighter share is a right 17 hand or left hand? 18 A. It's left hand. It's the 19 dependent variable. 20 Q. Yeah, yeah, okay. So is it 21 that you're looking at the fighter share 22 on the left hand, the right hand has a 23 number of characteristics that are 24 individual to each fighter, they're	1 been in this but-for world. It's that 2 simple. And then we're going to compare 3 the predicted wage share to the actual 4 wage share. 5 Q. Okay. Then it's the -- 6 you're putting in the foreclosure amount 7 along with the individual characteristics 8 and then getting the wage share and 9 comparing that to the actual -- what 10 actually happened? 11 A. Yes. 12 Q. Okay. Thank you. 13 The -- and the -- when you 14 do this analysis fighter-by-fighter or by 15 fighter/event pairing, the foreclosure 16 percentage that you're putting in there, 17 is that the same for all fighters for 18 each year? 19 A. Oh. So when we go into a 20 but-for world -- 21 Q. Yes. 22 A. -- whether it's the zero 23 percent scenario, the 20 percent 24 scenario, or the 30 percent, that is used

<p>1 studied that and I imagine for someone 2 who lives very far from the venue where 3 the live event is staged, they would not 4 be considered reasonably close 5 substitutes.</p> <p>6 Q. So for your input markets, 7 what evidence did you take into account 8 to assess customer's likely response to 9 price increase in the SSNIP analysis? 10 And feel free to point me to the sections 11 of your report that --</p> <p>12 A. Did you mean to say -- I 13 think you just conflated the input 14 markets and customers. Maybe we should 15 start over.</p> <p>16 Q. Yes, I said price increase 17 rather than wage decrease, but let me 18 just put it this way: What evidence in 19 your report did you take into account to 20 assess the likely response to a SSNIP in 21 the input markets?</p> <p>22 A. Sure. So there it's the 23 perspective of the fighters not the 24 customers. So I was tripping up over</p>	<p>1 to -- 2 MR. CRAMER: Okay. 3 MR. ISAACSON: I'm not going 4 to ask him to recite all the 5 documentary evidence. 6 BY MR. ISAACSON: 7 Q. And I understand that 8 there's documentary evidence that you're 9 not reciting today. 10 Okay. Other than the record 11 evidence of the -- about sub- -- 12 perceptions of substitutability from the 13 stakeholders, what would be other parts 14 of your SSNIP analysis for the input 15 market?</p> <p>16 A. I would direct you to 17 Section 3A 1 for all of the evidence that 18 I used to inform the construction of the 19 relevant input market.</p> <p>20 Q. That would be the record 21 evidence that you were referring to? 22 A. Well, record evidence is 23 fairly broad, right, because it 24 encompasses almost everything. But I</p>
<p>1 your -- 2 Q. Yes. 3 A. -- injecting customers when 4 we're talking about input markets. 5 So I can take you to the 6 relevant sections, and I will, but of 7 course at high levels, I'm looking at 8 record evidence of -- of what fighters 9 and promoters thought about substitution 10 possibilities as you -- if you were to 11 move away from Zuffa to counteract a 12 hypothetical wage cut. 13 Q. Okay. So the first thing 14 you looked at was record evidence of 15 substitution. 16 A. Or the perception of 17 substitution from the stakeholders, the 18 fighters, the promoters, and I'll just 19 point you, if you -- 20 Q. That's -- that's sufficient 21 for -- for item 1. 22 MR. CRAMER: You asked him 23 to look at his report. 24 MR. ISAACSON: I'm going</p>	<p>1 will point -- to me the -- what helps to 2 guide me to the findings that I made with 3 respect to the input market was the fact 4 that Zuffa was able to successfully 5 suppress fighter wages, wages either 6 measured by -- by wage share, regression 7 or by knowledge of the fact that wage 8 shares were falling over time from 9 26 percent to 18 percent, yet Zuffa did 10 not suffer sufficient defection so as to 11 render that wage decrease unprofitable. 12 Now, that -- that tells you, 13 as a matter of economics, that a -- that 14 a reasonable starting place for defining 15 the contours of the relevant input market 16 is just the fighters under Zuffa's 17 control. That was the -- the first thing 18 that occurred to me. 19 And once you -- once you 20 start there, you can start looking at 21 record evidence to determine whether 22 additional fighters from -- from rival 23 promotions ought to be included so that 24 you eventually get to the smallest set of</p>

1 fighters such that a hypothetical  
 2 monopsonist could profitably exercise  
 3 monopsony power.

4 Q. All right. And you said  
 5 that Zuffa was able to successfully  
 6 suppress fighter wages -- wage share.  
 7 You were talking only about the share of  
 8 revenues there, correct?

9 A. Correct.  
 [REDACTED]

1 BY MR. ISAACSON:

2 Q. So my actual question was --  
 3 I understand you're focused on that, but  
 4 my question is, did you look at whether  
 5 Zuffa actually suppressed actual wages?

6 A. Without controlling for  
 7 revenues, no. Because it's incorrect to  
 8 do so.

9 Q. So in performing your SSNIP  
 10 analysis for the input markets, is it  
 11 fair to say that you relied on the record  
 12 evidence about the issue of perceived  
 13 substitution from the stakeholders along  
 14 with your observations that when Zuffa  
 15 suppressed fighter wage shares, there  
 16 weren't significant defections?

17 A. I think -- I think that  
 18 encompasses a lot. I also think that  
 19 Zuffa in its ordinary course of business  
 20 made use of a FightMetrics (sic)  
 21 database. I had -- the very first thing  
 22 I did when I -- when I got this case was  
 23 I started reading the economic literature  
 24 on the MMA industry, and almost every

5 BY MR. ISAACSON:

6 Q. All right. But in your --  
 7 in your hypothetical there you held  
 8 revenues constant. Did you look at, as  
 9 part of your analysis of the input market  
 10 and defining that market, as to whether  
 11 Zuffa actually suppressed actual wages?

12 MR. CRAMER: Objection to  
 13 form.

14 BY MR. ISAACSON:

15 Q. As opposed to wage share?

16 MR. CRAMER: Same objection.

17 THE WITNESS: I'm focused on  
 18 wage share, of course, because  
 19 it's the right thing to look at  
 20 from an economic perspective.  
 21 We're trying to measure  
 22 exploitation, and the textbooks  
 23 tell you to do it as a share of  
 24 marginal revenue product.

1 article I read, the FightMetrics (sic)  
 2 database formed the foundation of their  
 3 empirical analysis.

4 So I thought that that was a  
 5 reasonable place to begin to posit what  
 6 the smallest set of fighters that could  
 7 be under the control of a hypothetical  
 8 monopsony would be in order for it to  
 9 exercise market power.

10 Q. All right. Why did you use  
 11 the smallest set of fighters not the  
 12 smallest amount of promoters?

13 A. Well, because we're looking  
 14 at the input market. The fighters form  
 15 the elements of the input market. They  
 16 happen to belong to promoters, but  
 17 fighters are the elements or the  
 18 ingredients.

19 But I'm -- if I'm a  
 20 fighter -- just to make it clear, if I'm  
 21 a fighter and I'm thinking about  
 22 substituting, defecting from UFC and  
 23 going to a rival promotion, I don't care  
 24 what the name of the promotion is or

<p>1 who's running it or who the chief 2 matchmaker is, I want to make sure that 3 I'm going to be put inside of a pool 4 of -- of fighters such that I have a 5 prospect of elevating through the ranks. 6 It's the fighters that determine what a 7 reasonable substitute is when fighters 8 are considering defecting.</p> <p>9 Q. Now, you're not suggesting 10 that Zuffa used the Fight Matrix data to 11 define a market, are you?</p> <p>12 A. Well, you just toggled from 13 FightMetrics (sic) to Fight Matrix.</p> <p>14 Q. I'm sorry, FightMetrics 15 (sic). Sorry. I was bound to do that 16 today.</p> <p>17 But you're not suggesting 18 that Zuffa used FightMetrics (sic) data 19 to define a market?</p> <p>20 A. I'm suggesting that firms 21 are not -- are not employed -- firms are 22 not in the businesses of defining 23 relevant product markets as the normal 24 course of business, right? They're doing</p>	<p>1 perceptions of substitutability from 2 stakeholders, your observations about how 3 Zuffa suppressed fighter wage shares 4 without defections or significant 5 defections, and Zuffa's reliance on the 6 FightMetrics (sic) database?</p> <p>7 MR. CRAMER: Would you like 8 him to look at his report, is that 9 what you're asking?</p> <p>10 MR. ISAACSON: He can look 11 at his report in answering the 12 questions. I've allowed him to do 13 that for every question.</p> <p>14 MR. CRAMER: Okay, good.</p> <p>15 THE WITNESS: By looking at 16 it, it refreshes my memory that in 17 paragraph 101, for example, I'm 18 looking at evidence, again from 19 the perspective of what I call 20 stakeholders, or mostly fighters, 21 as to whether or not some -- some 22 sport outside of MMA would 23 constitute a reasonable substitute 24 to defect to in response to a wage</p>
<p>1 something else. Defining markets is the 2 task of an antitrust economist.</p> <p>3 Q. All right.</p> <p>4 A. But I do think it's 5 important that Zuffa uses and relies on 6 the FightMetrics (sic) database in its 7 ordinary course of business.</p> <p>8 Q. All right. And is that part 9 of -- do you consider that -- that 10 observation that Zuffa relies on the 11 FightMetrics (sic) database to be part of 12 your SSNIP analysis?</p> <p>13 A. I think it undergirds the 14 conclusion that -- that this is the 15 relevant set of fighters that would need 16 to be under the control of a hypothetical 17 monopsonist so that the wage decrease 18 below competitive levels would not be 19 rendered unprofitable.</p> <p>20 Q. Right. So does your SSNIP 21 analysis for the input markets consist of 22 anything other than the things that 23 you've listed so far: The record 24 evidence of substitution -- of</p>	<p>1 decrease.</p> <p>2 And we can go through 3 paragraph-by-paragraph. I don't 4 know if that's how you want me to 5 use the time --</p> <p>6 BY MR. ISAACSON:</p> <p>7 Q. I thought -- I thought that 8 as encompassed within the record evidence 9 of perceptions of substitute billing.</p> <p>10 A. Right. But why -- I mean, I 11 wouldn't say why we go by my memory of 12 what I used, we have the report and we 13 can go paragraph-by-paragraph and I 14 can --</p> <p>15 Q. Your report is long, I'm 16 trying to see if I can get a summary of 17 your conclusions with you having access 18 to your report.</p> <p>19 MR. CRAMER: So he wants you 20 to take your time and make sure 21 that you've adequately summarized 22 your conclusions and the evidence 23 upon which they're based.</p> <p>24 THE WITNESS: Okay.</p>